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TRANSMITTAL FORM

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Total Number of Pages in This Submission

18

Application Number

10/574,429

Filing Date

April 3, 2006

First Named Inventor

Bond

Art Unit

1614

Examiner Name

TBD

Attorney Docket Number

8077-005-US

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Catalyst Law Group, APC		
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Printed name	Michael B. Farber, Ph.D., Esq.		
Date	June 30, 2006	Reg. No.	32,612

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PATENT
8077-005-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	Examiner: To Be Assigned
)	
Bond)	Group Art Unit: 1614
)	
Serial No.: 10/574,429)	
)	Docket No.: 8077-005-US
)	
Filed: April 3, 2006)	Date Mailed: June 30, 2006
)	
For: METHODS FOR TREATING)	
DISEASES AND CONDITIONS WITH)	
INVERSE AGONISTS AND FOR)	
SCREENING FOR AGENTS ACTING)	
AS INVERSE AGONISTS)	
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INFORMATION DISCLOSURE STATEMENT

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Dear Sir:

This document is an Information Disclosure Statement to the above-cited patent application.

Attached is at least one form PTO/SB/08A/B listing documents believed relevant to the subject application. The submission of the following information is not intended, nor should it be construed, to constitute an admission that any patent, article, or other information referred to herein is "prior art" unless specifically designated as such. In accordance with 37 C.F.R. § 1.97(b), the filing of this information shall not be construed

to mean that a search has been made or that no other material information may exist. Neither should its submission be construed to indicate that a thorough search should not be conducted by the Examiner.

It is believed that this disclosure complies with the requirements of 37 C.F.R. § 1.96, § 1.97, and § 1.98 and the Manual of Patent Examining Procedures § 707.05(b). If for some reason the Examiner considers otherwise, it is respectfully requested that the undersigned be telephoned at (858) 450-0099 x302 so that any deficiencies can be remedied.

This Information Disclosure Statement is being submitted before the mailing date of an Office Action on the merits for the above-identified patent application. Accordingly, no fee is due for the filing of this Information Disclosure Statement under 37 C.F.R. § 1.97(b)(2).

A copy of each document is enclosed, except for issued United States patents and published United States patent applications pursuant to 37 C.F.R. § 1.98(a)(2)(ii). Some of the documents may have markings thereon. No significance is to be attached to the markings. These documents are not necessarily analogous art. Additionally, the order of the following documents is to be accorded no particular import, as the order thereof is completely fortuitous.

It is respectfully requested that these documents be: (1) fully considered by the Patent and Trademark Office during the prosecution of this application; and (2) represented on any patent which may issue on the application. Applicant respectfully requests that copies of the forms PTO/SB/08A/B, as considered and initialed by the Examiner, be returned with the next communication.

U.S. Patent No. 4,428,926 to Keith, issued on January 31, 1984.

U.S. Patent No. 4,769,372 to Kreek, issued on September 6, 1988.

U.S. Patent No. 5,116,867 to Klein et al., issued on May 26, 1992.

U.S. Patent No. 5,316,759 to Rose et al., issued on May 31, 1994.

U.S. Patent No. 5,352,680 to Portoghese et al., issued on October 4, 1994.

U.S. Patent No. 5,472,943 to Crain et al., issued on December 5, 1995.

U.S. Patent No. 5,580,876 to Crain et al., issued on December 3, 1996.

U.S. Patent No. 5,585,348 to Crain et al.; issued on December 17, 1996.

U.S. Patent No. 5,597,699 to Lanzara, issued on January 28, 1987.

U.S. Patent No. 5,624,932 to Qin et al., issued on April 29, 1997.

U.S. Patent No. 5,767,125 to Crain et al., issued on June 16, 1998.

U.S. Patent No. 5,932,702 to Fujii et al., issued on August 3, 1999.

U.S. Patent No. 6,039,980 to Baichwal, issued on March 21, 2000.

U.S. Patent No. 6,096,756 to Crain et al., issued on August 1, 2000.

U.S. Patent No. 6,107,324 to Behan et al., issued on August 22, 2002.

U.S. Patent No. 6,140,509 to Behan et al., issued on October 31, 2000.

U.S. Patent No. 6,150,393 to Behan et al., issued on November 21, 2000.

U.S. Patent No. 6,194,382 to Crain et al., issued on February 27, 2001.

U.S. Patent No. 6,218,402 to Chalmers et al., issued on April 17, 2001.

U.S. Patent No. 6,284,800 to Broder et al., issued on September 4, 2001.

U.S. Patent No. 6,362,194 to Crain et al., issued on March 26, 2002.

U.S. Patent No. 6,395,705 to Crain et al., issued on May 28, 2002.

U.S. Patent No. 6,420,541 to Behan et al., issued on July 16, 2002.

U.S. Patent No. 6,420,563 to Beeley et al., issued on July 16, 2002.

U.S. Patent No. 6,541,209 to Behan et al., issued on April 1, 2003.

U.S. Patent No. 6,555,339 to Liaw et al., issued on April 29, 2003.

U.S. Patent No. 6,593,094 to Lanzara et al., issued on July 15, 2003.

U.S. Patent No. 6,653,086 to Behan et al., issued on November 25, 2003.

U.S. Patent No. 6,673,558 to Lanzara, issued on January 6, 2004.

U.S. Patent No. 6,737,400 to Crain et al., issued on May 18, 2004.

U.S. Patent No. 6,740,634 to Saikawa et al., issued on May 25, 2004.

U.S. Patent No. 6,765,010 to Crain et al., issued on July 20, 2004.

U.S. Patent No. 6,806,054 to Lehmann-Bruinsma et al., issued on October 19, 2004.

U.S. Patent No. 7,026,329 to Crain et al., issued on April 11, 2006.

U.S. Reissue Patent No. Re. 36,547 to Crain et al., reissued on February 1, 2000.

U.S. Patent Application Publication No. 2001/0006967 by Crain et al., published on July 5, 2001.

U.S. Patent Application Publication No. 2002/0094947 by Crain et al., published on July 18, 2002.

U.S. Patent Application Publication No. 2002/0106739 by Oakley et al., published on August 8, 2002.

U.S. Patent Application Publication No. 2002/0137761 by Crain et al., published on September 26, 2002.

U.S. Patent Application Publication No. 2004/0249416 by Yun et al., published on December 9, 2004.

U.S. Patent Application Publication No. 2005/0021092 by Yun et al., published on January 27, 2005.

PCT Patent Publication No. WO 98/38985 by Matsumori, published on September 11, 1998.

PCT Patent Publication No. WO 02/24198, by Bond, published on March 28, 2002.

PCT Patent Publication No. WO 02/036591 by Drechsel et al. (Boehringer Ingelheim), published on May 10, 2002, which discloses a propellant-free inhalation formulation of tiotropium bromide or tiotropium bromide monohydrate, which is dissolved in water or in a mixture consisting of water and ethanol, and to propellant-free aerosols resulting from the formulation. The formulation can be used for asthma or for chronic obstructive pulmonary disease.

PCT Patent Publication No. WO 03/000735 by Martinez et al., published on January 3, 2003.

PCT Patent Publication No. WO 04/110551 by Yun et al., published on December 23, 2004.

A publication, H. Krum et al., "Baseline Predictors of Tolerability to Carvedilol in Patients with Chronic Heart Failure," Heart 84: 615-619 (2000).

A publication, S. Nagaraja et al., "Treatment with Inverse Agonists Enhances Baseline Atrial Contractility in Transgenic Mice with Chronic β_2 -Adrenoceptor Activation," Br. J. Pharmacol. 127: 1099-1104 (1999).

A publication, S. Markowitz et al., "Timolol: A 4-Year Follow-Up Study," Can. J. Ophthalmol. 18: 278-280 (1983).

A publication, R. Seifert et al., "Constitutive Activity of G-Protein-Coupled Receptors: Cause of Disease and Common Property of Wild-Type Receptors," Naunyn-Schmiedeberg's Arch. Pharmacol. 366: 381-416 (2002).

A publication, Lesscher et al., Eur. J. Neurosci. 17: 1006-1012 (2003).

A publication, S.M. Crain & K.F. Shen, "Ultra-Low Concentrations of Naloxone Selectively Antagonize Excitatory Effects of Morphine on Sensory Neurons, Thereby Increasing Its Antinociceptive Potency and Attenuating Tolerance/Dependence During Chronic Cotreatment," Proc. Natl. Acad. Sci. 92: 10540-10544 (1995).

A publication, N. Marie et al., "Differential Sorting of Human δ -Opioid Receptors After Internalization by Peptide and Alkaloid Antagonists," J. Biol. Chem. 278: 22795-22804 (2003).

A publication, C.N. Patel et al., "Chronic Opioid Antagonist Treatment Selectively Regulates Trafficking and Signaling Proteins in Mouse Spinal Cord," Synapse 50: 67-76 (2003).

A publication, B.J. Lipworth, "Clinical Pharmacology of β_3 -Adrenoceptors," Br. J. Clin. Pharmacol. 42: 291-300 (1996).

A publication, L.J. Emorine et al., "Molecular Characterization of the Human β_3 -Adrenergic Receptor," Science 245: 1118-1121(1989).

A publication, A.D. Strosberg & F. Pietri-Rouxel, "Function and Regulation of the β_3 -Adrenoceptor," Trends Pharmacol. Sci. 17: 373-381 (1996).

A publication, E.S. Bachman et al., " β AR Signaling Required for Diet-Induced Thermogenesis and Obesity Resistance," Science 297: 843-845 (2002).

A publication, J.R. Arch, $\beta(3)$ -Adrenoceptor Agonists: Potential, Pitfalls and Progress, Eur. J. Pharmacol. 440: 99-107 (2002).

A publication, J.R. Arch & S. Wilson, β_3 -Adrenoceptors and the Regulation of Metabolism in Adipose Tissues," Biochem. Soc. Trans. 24: 412-418 (1996).

A publication, T.M. Larsen et al., "Effect of a 28-d Treatment with -796568, a Novel $\beta(3)$ -Adrenergic Receptor Agonist, on Energy Expenditure and Body Composition in Obese Men," Am. J. Clin. Nutr. 76: 780-788 (2002).

A publication, V. Soloveva et al., "Transgenic Mice Overexpressing the β_1 -Adrenergic Receptor in Adipose Tissue, Mol. Endocrinol. 11: 27-38 (1997).

A publication, G. Saccomanni et al., "Synthesis and Beta-Blocking Activity of (R,S)-(E)-Oximeethers of 2,3-Dihydro-1,8-Naphthyridine and 2,3-Dihydrothiopyrano[2,3-b]pyridine: Identification of β_3 -Antagonists," Bioorg. Med. Chem. 11: 4921-4931 (2003).

A publication, L. Manara et al., "Functional Identification of Rat Atypical β -Adrenoceptors by the First β_3 -Selective Antagonists, Aryloxypropanolaminotetralins," "Br. J. Pharmacol. 117: 435-442 (1996).

A publication, R.A. Bond et al., "Effects of Chronic Treatment with β -Adrenoceptor Antagonist and Inverse Agonists on a Murine Model of Asthma," FASEB J. 17: Abstract No. 142.8 (2003).

A publication, American Lung Association's Epidemiology and Statistics Unit, Best Practices and Program Services. Trends in Asthma Morbidity and Mortality, 2002.

A publication, T. Clark & J. Rees, "Practical Management of Asthma" (2d ed, Martin Dunitz, 1996), pp. 47-79, 99-139.

A publication, T. Costa & A. Herz, "Antagonists with Negative Intrinsic Activity at δ Opioid Receptors Coupled to GTP-Binding Proteins," Proc. Natl. Acad. Sci. USA 86: 7321-7325 (1989).

A publication, R.A. de Ligt et al., "Inverse Agonism at G Protein-Coupled Receptors: (Patho)physiological Relevance and Implications for Drug Discovery," Br. J. Pharmacol. 130: 1-12 (2000).

A publication, G. Milligan et al., "Inverse Agonism: Pharmacological Curiosity or Potential Therapeutic Strategy?," Trends Pharmacol. Sci. 16: 10-13 (2000).

A publication, Z. Callaerts-Vegh et al., "Effects of Acute and Chronic Administration of β -Adrenoceptor Ligands on Airway Function in a Murine Model of Asthma," Proc. Natl. Acad. Sci. USA 101: 4948-4953 (2004) (not prior art in view of the filing date of provisional application; included solely for convenience and completeness).

A publication, L. Rubinstein & R. Lanzara, "Activation of G Protein-Coupled Receptors Entails Cysteine Modulation of Agonist Binding," J. Molecular Structure (Theochem) 430: 57-71 (1998).

A publication, R. Lanzara, "Weber's Law Modeled by the Mathematical Description of a Beam Balance," Mathematical Biosciences 122: 89-94 (1994).

A publication, A.S.P. Hua et al., "Results from a Multicentre Trial of Metoprolol and a Study of Hypertensive Patients with Chronic Obstructive Lung Disease," Med. J. Australia 1978: 282-286 (March 11, 1978).

A publication, L. Daeffler & Y. Landry, "Inverse Agonism at Heptahelical Receptors: Concept, Experimental Approach and Therapeutic Potential," Fundam. Clin. Pharmacol. 14: 73-87 (2000).

An internet publication, R. Lanzara, "Preventing Rapid Receptor Desensitization at the beta-1-Adrenergic Receptor with Agonist/Antagonist Combinations" The Chemweb Preprint Server, <http://preprint.chemweb.com/medichem/0302002> (2003).


An internet publication, R. Lanzara, "Desensitization of a Balance with Langmuir Binding of Weights" arXiv 2003, <http://arXiv.org/abs/physics/0303055>

An internet publication, R. Lanzara, "The Anemone and the Balance" The Chemweb Preprint Server 2003, <http://preprint.chemweb.com/chemistry/0302001>

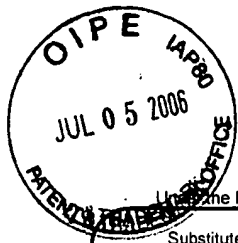
If any issues remain, the Examiner is respectfully requested to telephone the undersigned at (858) 200-0581.

Respectfully submitted,

Date: June 30, 2006


Michael B. Farber, Ph.D., Esq.
Reg. No.: 32,612

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/574,429
Filing Date	April 3, 2006
First Named Inventor	Bond
Art Unit	1614
Examiner Name	TBD
Attorney Docket Number	8077-005-US

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 4,428,926	01-31-1984	KEITH	
		US- 4,769,372	09-06-1988	KREEK	
		US- 5,116,867	05-26-1992	KLEIN et al.	
		US- 5,316,759	05-31-1994	ROSE et al.	
		US- 5,352,680	10-04-1994	PORTOGHESE et al.	
		US- 5,472,943	12-05-1995	CRAIN et al.	
		US- 5,580,876	12-03-1996	CRAIN et al.	
		US- 5,585,348	12-17-1996	CRAIN et al.	
		US- 5,597,699	01-28-1987	LANZARA	
		US- 5,624,932	04-29-1997	QIN et al.	
		US- 5,767,125	06-16-1998	CRAIN et al.	
		US- 5,932,702	08-03-1999	FUJII et al.	
		US- 6,039,980	04-21-2000	BAICHWAL et al.	
		US- 6,096,756	08-01-2000	CRAIN et al.	
		US- 6,107,324	08-22-2002	BEHAN et al.	
		US- 6,140,509	10-31-2000	BEHAN et al.	
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		US- 6,194,382	02-27-2001	CRAIN et al.	
		US- 6,218,402	04-17-2001	CHALMERS et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
		WO 98/38985	09-11-1998	MATSUMORI		
		WO 02/24198	04-28-2002	BOND		
		WO 02/036591	05-10-2002	DRECHSEL et al.		
		WO 03/000735	01-03-2003	MARTINEZ et al.		
		WO 04/110551	12-23-2004	YUN et al.		

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Application Number	10/574,429
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		US- 6,737,400	05-18-2004	CRAIN et al.	
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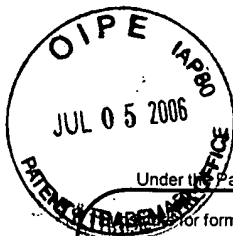
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STATEMENT BY APPLICANT**

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Application Number	10/574,429
Filing Date	April 3, 2006
First Named Inventor	Bond
Art Unit	1614
Examiner Name	TBD
Attorney Docket Number	8077-005-US

Sheet	1	of	4
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NON PATENT LITERATURE DOCUMENTS

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		H. KRUM et al., "Baseline Predictors of Tolerability to Carvedilol in Patients with Chronic Heart Failure," Heart 84: 615-619 (2000).	
		S. NAGARAJA et al., "Treatment with Inverse Agonists Enhances Baseline Atrial Contractility in Transgenic Mice with Chronic...", Br. J. Pharmacol. 127: 1099-1104 (1999).	
		S. MARKOWITZ et al., "Timolol: A 4-Year Follow-Up Study," Can. J. Ophthalmol. 18: 278-280 (1983).	
		R. SEIFERT et al., "Constitutive Activity of G-Protein-Coupled Receptors: Cause of Disease and Common...", Naunyn-Schmiedeberg's Arch. Pharmacol. 366: 381-416 (2002).	
		LESSCHER et al., Eur. J. Neurosci. 17: 1006-1012 (2003).	
		S.M. CRAIN & K.F. SHEN, "Ultra-Low Concentrations of Naloxone Selectively Antagonize Excitatory Effects...", Proc. Natl. Acad. Sci. 92: 10540-10544 (1995).	
		N. MARIE et al., "Differential Sorting of Human μ -Opioid Receptors After Internalization by Peptide and Alkaloid Antagonists," J. Biol. Chem. 278: 22795-22804 (2003).	
		C.N. PATEL et al., "Chronic Opioid Antagonist Treatment Selectively Regulates Trafficking and Signaling Proteins in Mouse Spinal Cord," Synapse 50: 67-76 (2003).	
		B.J. LIPWORTH, "Clinical Pharmacology of μ 3-Adrenoceptors," Br. J. Clin. Pharmacol. 42: 291-300 (1996).	
		L.J. EMORINE et al., "Molecular Characterization of the Human μ 3-Adrenergic Receptor," Science 245: 1118-1121(1989).	

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		Application Number	10/574,429
		Filing Date	April 3, 2006
		First Named Inventor	Bond
		Art Unit	1614
		Examiner Name	TBD
Sheet 2 of 4	Attorney Docket Number	8077-005-US	

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		A.D. STROSBERG & F. PIETRI-ROUXEL, "Function and Regulation of the •3-Adrenoceptor," Trends Pharmacol. Sci. 17: 373-381 (1996).	
		E.S. BACHMAN et al., "AR Signaling Required for Diet-Induced Thermogenesis and Obesity Resistance," Science 297: 843-845 (2002).	
		J.R. ARCH, "(3)-Adrenoceptor Agonists: Potential, Pitfalls and Progress, Eur. J. Pharmacol. 440: 99-107 (2002).	
		J.R. ARCH & S. WILSON, "•3-Adrenoceptors and the Regulation of Metabolism in Adipose Tissues," Biochem. Soc. Trans. 24: 412-418 (1996).	
		T.M. LARSEN et al., "Effect of a 28-d Treatment with -796568, a Novel •(3)-Adrenergic Receptor Agonist, on Energy Expenditure and...", Am. J. Clin.Nutr. 76: 780-788 (2002).	
		V. SOLOVEVA et al., "Transgenic Mice Overexpressing the •1-Adrenergic Receptor in Adipose Tissue, Mol. Endocrinol. 11: 27-38 (1997).	
		G. SACCOMANNI et al., "Synthesis and Beta-Blocking Activity of (R,S)-(E)-Oximeethers of 2,3-Dihydro-1,8-Naphthyridine and...", Bioorg. Med. Chem. 11: 4921-4931 (2003).	
		L. MANARA et al., "Functional Identification of Rat Atypical •-Adrenoceptors by the First •3-Selective Antagonists...", "Br. J. Pharmacol. 117: 435-442 (1996).	
		R.A. BOND et al., "Effects of Chronic Treatment with •-Adrenoceptor Antagonist and Inverse Agonists on a Murine Model of Asthma," FASEB J. 17: Abstract No. 142.8 (2003).	
		American Lung Association's Epidemiology and Statistics Unit, Best Practices and Program Services. Trends in Asthma Morbidity and Mortality, 2002.	

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		Filing Date	April 3, 2006
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		Art Unit	1614
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		T. CLARK & J. REES, "Practical Management of Asthma" (2d ed, Martin Dunitz, 1996), pp. 47-79, 99-139.	
		T. COSTA & A. HERZ, "Antagonists with Negative Intrinsic Activity at • Opioid Receptors Coupled to GTP-Binding Proteins," Proc. Natl. Acad. Sci. USA 86: 7321-7325 (1989).	
		R.A. DE LIGT et al., "Inverse Agonism at G Protein-Coupled Receptors: (Patho)physiological Relevance and Implications for Drug Discovery," Br. J. Pharmacol. 130: 1-12 (2000).	
		G. MILLIGAN et al., "Inverse Agonism: Pharmacological Curiosity or Potential Therapeutic Strategy?," Trends Pharmacol. Sci. 16: 10-13 (2000).	
		Z. CALLAERTS-VEGH et al., "Effects of Acute and Chronic Administration of •-Adrenoceptor Ligands...," Proc. Natl. Acad. Sci. USA 101: 4948-4953 (2004).	
		L. RUBINSTEIN & R. LANZARA, "Activation of G Protein-Coupled Receptors Entails Cysteine Modulation of Agonist Binding," J. Molecular Structure (Theochem) 430: 57-71 (1998).	
		R. LANZARA, "Weber's Law Modeled by the Mathematical Description of a Beam Balance," Mathematical Biosciences 122: 89-94 (1994).	
		A.S.P. HUA et al., "Results from a Multicentre Trial of Metoprolol and a Study of Hypertensive Patients with Chronic Obstructive...," Med. J. Australia 1978: 282-286 (1978).	
		L. DAEFFLER & Y. LANDRY, "Inverse Agonism at Heptahelical Receptors: Concept, Experimental Approach and Therapeutic Potential," Fundam. Clin. Pharmacol. 14: 73-87 (2000).	
		R. LANZARA, "Preventing Rapid Receptor Desensitization at the beta-1-Adrenergic...," The Chemweb Preprint Server, http://preprint.chemweb.com/medichem/0302002 (2003).	

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		R. LANZARA, "Desensitization of a Balance with Langmuir Binding of Weights" arXiv 2003, http://arXiv.org/abs/physics/0303055	
		R. LANZARA, "The Anemone and the Balance" The Chemweb Preprint Server 2003, http://preprint.chemweb.com/chemistry/0302001	

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